COMMONWEALTH of VIRGINIA

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COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Blue Ridge Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Griffin Pipe Products Co.
10 Adams St., Lynchburg, Virginia
Permit No. BRRO-30397

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9VAC5 Chapter 80, Griffin Pipe Products Co. has applied for a Title V Operating Permit for its Lynchburg facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

Engineer/Permit Contact: _____ Date: _____
Allen Armistead
434-582-5120

Air Permit Manager: _____ Date: _____
David J. Brown

Regional Director: _____ Date: _____
Robert J. Weld

FACILITY INFORMATION

Permittee
Griffin Pipe Products Co., LLC
1011 Warrenville Road, Suite 550
Lisle, IL 60532

Facility
Griffin Pipe Products Co., LLC
10 Adams Street
Lynchburg, VA 24505

EPA Identification Number: 51-680-00095

SOURCE DESCRIPTION

NAICS Code: 331511 SIC: 3321 - Cast iron pipe manufacturing

Griffin Pipe Products Co., Inc. is a manufacturer of ductile iron pipe. Operations at the facility can be conducted twenty-four (24) hours per day, seven (7) days per week, fifty-two (52) weeks per year. The facility manufactures ductile iron pipe by melting scrap iron in a cupola using coke as fuel and treats the molten iron with additives to make ductile iron. The molten iron is poured into water cooled centrifugal casting machines to make pipe that is used in water supply systems. After casting, the pipe is processed in an annealing oven. The pipe is then finished by grinding and cutting where necessary to meet specification, lined with a thin layer of cement, and painted. The facility has the capability to produce 50 tons of molten iron per hour.

The facility is a Title V major source of PM-10, CO, SO_2, and VOC. This source is located in an attainment area for all pollutants, and is a PSD major source. The facility had not been previously permitted under the Commonwealth of Virginia State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution (the Regulations) prior to the issuance of a State Operating Permit (SOP) on April 16, 2007, last amended APRIL 21, 2015, and a minor NSR (mNSR) permit issued on December 19, 2009. Several emissions units at the facility had been permitted under mNSR permits dated June 21, 2004 and April 27, 2005. These two mNSR permits were combined into the mNSR permit issued on December 18, 2009. The December 18, 2009 permit was replaced by an administrative amendment issued April 7, 2010, and then by a minor amendment issued January 12, 2012.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
Melting Department							
S1	fugitive	Charging System Scrap Steel Handling Coke and Alloy Handling	50 tons/hr	None	N/A	N/A	SOP amended April 21, 2015
S2	EP57	94" Cupola pre-1972	50 tons/hr 143 MMBtu/hr	None	N/A	N/A	SOP amended April 21, 2015
	EP83			Afterburner GMD Environ. Tech. fabric filter - Model 05-850	S2A1 S2A2	CO PM-10, metal HAPs	None SOP amended April 21, 2015
S8	EP68A & B, EP69-72	Iron Trough	50 tons/hr	None	N/A	N/A	SOP amended April 21, 2015
S3	EP68A & B, EP69-72, EP81	Desulfurization Ladle with N_2 nozzles	50 tons/hr	ETA Engineering fabric filter	S3A1	PM-10, metal HAPs	SOP amended April 21, 2015
S4	EP68A & B, EP69-72	Forehearth - Iron Holding Ladle	50 tons/hr	None	N/A	N/A	SOP amended April 21, 2015
S5	EP68A & B, EP69-72	Alloy Addition - Dump Car and Scales	50 tons/hr	None	N/A	N/A	SOP amended April 21, 2015
S6	EP68A & B, EP69-72, EP81	Magnesium Plunging Hood	50 tons/hr	ETA Engineering fabric filter	S3A1	PM-10, metal HAPs	SOP amended April 21, 2015
S20	EP83	Iron Melting Dust Treatment System	1.14 tons/hr	GMD Environ. Tech. fabric filter - Model 05-850	S2A2	PM-10	mNSR amended 1/12/12

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
S21	EP81	Iron Plunging/Desulfurization Dust Treatment System	1.14 tons/hr	ETA Engineering fabric filter	S3A1	PM-10	mNSR amended 1/12/12
S22	EP82	Dust Treatment Chemical Silo	2200 ft^3\100 tons – 20 tons/hr	GMD Enviro. Tech. fabric filter	S22A1	PM-10	mNSR amended 1/12/12
Pipe Casting							
S7	EP68C, EP73-78	Centrifugal Casting Machine S-7A Centrifugal Casting Machine S-7B Centrifugal Casting Machine S-7C Centrifugal Casting Machine S-7D Centrifugal Casting Machine S-3	32 tons/hr 32 tons/hr 38 tons/hr 32 tons/hr 14 tons/hr	None	N/A	N/A	mNSR amended 1/12/12 mNSR amended 1/12/12 mNSR amended 1/12/12 mNSR amended 1/12/12 SOP amended April 21, 2015
S10	EP84	Annealing Oven	106 MMBtu/hr	None	N/A	N/A	mNSR amended 1/12/12
S18	EP44	Shell Sand Silo	100 tons	Whirl Air Flow fabric filter	S18A1	PM-10	SOP amended April 21, 2015
S19	EP42	Shell Core Production S19-1 S19-2 S19-3	923 lb/hr & 1 MMBtu/hr 923 lb/hr & 1 MMBtu/hr 374 lb/hr & 0.25 MMBtu/hr	None	N/A	N/A	mNSR amended 1/12/12 mNSR amended 1/12/12 mNSR amended 1/12/12
Finishing							
S11	EP97	Grinding & Cutting	280 tons/hr	Camcorp fabric filter for grinding Wet Suppression for cutting	S11A1 S11A2	PM-10	mNSR amended 1/12/12
S12	Fugitive	Quick Dry Paint Pad Line 1- S12B Line 3 - S12A	5 gal/hr 5 gal/hr	None	N/A	N/A	mNSR amended 1/12/12 SOP amended April 21, 2015

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
S13	EP91B EP91A EP91C	Cement Silo Line 1- S13B Cement Silo Line 3- S13A Cement Transfer Silo Line 1- S13C	150 tons 127 tons 75 tons	Bin Vent Filter Bin Vent Filter Bin Vent Filter	S13BA1 S13AA1 S13CA1	PM-10	mNSR amended 1/12/12
S14	EP92B EP92A	Sand Silo Line 1- S14B Line 3- S14A	150 tons 127 tons	Bin Vent Filter Bin Vent Filter	S14BA1 S14AA1	PM-10	mNSR amended 1/12/12
S16	EP89 EP90	Painting Machine Line 1 - S16B Line 3 - S16A	95 gal/hr 45 gal/hr	Fabric Filter Fabric Filter	S16BA1 S16AA1	PM-10	mNSR amended 1/12/12
S23	EP23A, EP23B	Sand Transfer Silo Line 3- S23A Sand Transfer Silo Line 1- S23B	75 tons each	Bin Vent Filter Bin Vent Filter	S23AA1, BA1	PM-10	mNSR amended 1/12/12
S24	EP24A EP24B	Weigh hopper & Mixer Line 3 – S24A Line 1 – S24B	20 tons/hr 20 tons/hr	Bin Vent Filter Bin Vent Filter	S24AA1 S24BA1	PM-10	mNSR amended 1/12/12
S27	EP27	Pipe Mold Preparation		Fabric Filter	S27A1	PM-10	mNSR amended 1/12/12
S37	Fugitive	Pipe Stencil & Striper					mNSR amended 1/12/12
S39	EP3	Cement Curing Chamber (Line 1)	12 MMBtu/hr	None	N/A		mNSR amended 1/12/12
S44	EP04	Paint Drying Chamber (Line 1)	12 MMBtu/hr	None	N/A		mNSR amended 1/12/12
S45	Fugitive	Pipe Brushing		None	N/A		mNSR amended 1/12/12
S46	EP76-78	Core Sand Removal		None	N/A		mNSR amended 1/12/12
Other Units							
S38	EP38	natural gas fired emergency generator	25 kW	None	N/A		
S60	EP10	Gasoline storage tank	200 gallons	None	N/A		

EMISSIONS INVENTORY

A copy of the 2013 annual emission update is attached. Emissions are summarized in the following tables.

2013 Actual Emissions

	Criteria Pollutant Emission in Tons/Year				
Emission Unit	PM_{10}	SO_2	NO_x	CO	VOC
Cupola (S2) & Dust Treatment (S20)	27.6	34.5	35.0	154.3	9.6
Desulfurization (S3) & Magnesium Plunging (S6) & Dust Treatment (S21)	8.0				
Metal Treatment (S4, S5, & S8)	2.5				
Pipe Casting (S7)	6.1				
Pipe Annealing (S10)	0.8	0.1	10.5	8.8	0.6
Pipe Grinding & Finishing (S11)	0.01				
Pipe Painting (S12 & S16)	3.6				184.0
Drain Out Tubs					11.5
Storage Silos	0.02				
General Process	1.5	0.02	3.4	2.8	0.2
Total	50.1	34.6	48.9	165.9	205.9

2013 Facility Hazardous Air Pollutant Emissions

Pollutant	Hazardous Air Pollutant Emission in Tons/Yr
Lead	0.095
Benzene	0.25
n-Hexane	0.22
Xylene	0.19
Cyanide Compounds	0.40

EMISSION UNIT APPLICABLE REQUIREMENTS

MELTING DEPARTMENT REQUIREMENTS – CUPOLA (S2), DESULFURIZATION (S3), MAGNESIUM PLUNGING (S6), AND DUST TREATMENT SYSTEMS (S20, S21, S22)

The Cupola (S2), Desulfurization (S3), and Magnesium Plunging (S6) were installed prior to 1972 and are subject to Chapter 40 of the Regulations. Prior to the issuance of a State Operating Permit (SOP) on April 16, 2007, last amended APRIL 21, 2015, and a minor NSR (mNSR) permit issued on December 19, 2009, these units did not have any permit requirements based on Article 5 for a SOP or Article 6 for a mNSR of 9VAC5 Chapter 80 of the Regulations. Dust Treatment Systems (S20, S21, & S22) are subject to Chapter 50 of the Regulations, with S20 and S21 being included in a mNSR permit dated June 21, 2004, and S22 being included in a mNSR

permit dated April 27, 2005. These two permits were subsequently combined into the mNSR permit dated December 19, 2009; last amended January 12, 2012.

Limitations

The basis for the following requirements are the SOP permit issued 4/16/2007, last amended APRIL 21, 2015, and the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 1 - Particulate emissions from the Cupola (S2) and Metal Dust Treatment (S20) are to be controlled by a fabric filter (S2A2).
- Condition 3 - Particulate emissions from the Metal Treatment Processes (S3 & S6) and Metal Dust Treatment (S21) are to be controlled by a fabric filter (S3A1).
- Condition 5 - The minimum control efficiency for particulates from Cupola (S2) fabric filter S2A2 and the Iron Treatment Processes (S3 & S6) fabric filter S3A1 is specified.
- Condition 9 - The metal scrap throughput for the Cupola (S2) is limited.

The basis for the following requirements is the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 2 - Carbon Monoxide from the Cupola (S2) is to be controlled by an afterburner (S2A1).
- Condition 4 - Particulate emissions from the Metal Dust Treatment Silo (S22) are to be controlled by a bin vent filter (S22A1).
- Condition 7 - Approved fuels for the Cupola afterburner (S2A1) are listed.
- Condition 8 - Afterburner (S2A1) and Annealing Oven (S10) fuel usage is limited.
- Condition 10 - The throughput of treatment material for the Metal Dust Treatment Silo (S22) is limited.
- Condition 11 - The throughput of treatment material for the Iron Melting Dust Treatment System (S20) is limited.
- Condition 12 - The throughput of treatment material for the Iron Treatment Dust Treatment System (S21) is limited.
- Condition 16 - Particulate emissions for the Iron Melting Dust Treatment System (S20) are limited.
- Condition 17 - Visible emissions from the Metal Dust Treatment Silo (S22) are limited.
- Condition 18 - Visible emissions from the Cupola (S2) and Metal Dust Treatment (S20) fabric filter (S2A2) and from the Metal Treatment Processes (S3 & S6) and Metal Dust Treatment (S21) fabric filter (S3A1) are limited.

The basis for the following requirements is Chapter 40 of the Regulations for an existing stationary source.

- Condition 6 - The approved fuel for the Cupola (S2) is coke.
- Condition 13 - Emissions from the Cupola (S2) are limited for particulate emissions in accordance with 9VAC5-40-2410, and for sulfur dioxide emissions in accordance with 9VAC5-40-280 B.
- Condition 14 - Emissions from the Desulfurization Process (S3) are limited for particulate emissions in accordance with 9VAC5-40-260, and for sulfur dioxide emissions in accordance with 9VAC5-40-280 A.
- Condition 15 - Emissions from the Magnesium Plunging Process (S6) are limited for

particulate emissions in accordance with 9VAC5-40-260, and for sulfur dioxide emissions in accordance with 9VAC5-40-280 A.

Monitoring

Considering the following monitoring and recordkeeping, along with the O&M requirements in the facility-wide section and the MACT compliance requirements, the monitoring is sufficient to assure compliance with the requirements of this section.

The basis for the following requirements are the SOP permit issued 4/16/2007, last amended APRIL 21, 2015, and the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 19 - The Cupola (S2) fabric filter S2A2 and Metal Treatment Processes (S3 & S6) fabric filter S3A1 are to be equipped to measure the pressure drop across the fabric filter

The basis for the following requirements is 9VAC5-80-110 E and 9VAC5-80-110 K of the Regulations for a Federal Operating Permit:

- Condition 20 - Periodic monitoring requirements for the Cupola (S2) stack are listed.
- Condition 21 - Periodic monitoring requirements for the Dust Treatment Material Silo (S22) bin vent filter (S22A1) stack are listed.
- Condition 22 - CAM Plan (Attachment A) requirements for the Metal Treatment Processes (S3 & S6) fabric filter S3A1 stack are referenced.

Recordkeeping

The basis for the following requirements are the SOP permit issued 4/16/2007, last amended APRIL 21, 2015; the mNSR permit issued 12/19/2009; last amended 1/12/2012; Chapter 40 of the Regulations for an existing stationary source; Chapter 50 of the Regulations for a new and modified stationary source; 9VAC5-80-110 F of the Regulations for a Federal Operating Permit, and the requirements for CAM in 40 CFR 64:

- Condition 23 - A list of required records to be kept is included in the permit in conjunction with the Limitation and Monitoring requirements of the permit.

Testing

There are no testing requirements for the emission units in the Melting Department. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The basis for the following requirements are 9VAC5-80-110 F of the Regulations for a Federal Operating Permit and the requirements for CAM in 40 CFR 64:

- Condition 24 - CAM Plan reporting requirements are referenced.

Streamlined Requirements

None

PIPE CASTING DEPARTMENT REQUIREMENTS – CASTING (S7), ANNEALING (S10), AND SHELL SAND SILO (S18)

The Casting (S7) and Annealing (S10) were installed prior to 1972 and are subject to Chapter 40 of the Regulations. The Shell Sand Silo (S18) is subject to Chapter 50 of the Regulations. Prior to the issuance of a State Operating Permit (SOP) on April 16, 2007, last amended APRIL 21, 2015, and a minor NSR (mNSR) permit issued on December 19, 2009; last amended January 12, 2012, these units did not have any permit requirements based on Article 5 for a SOP or Article 6 for a mNSR of 9VAC5 Chapter 80 of the Regulations.

Limitations

The basis for the following requirements is the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 25 - Particulate emissions from the Shell Sand Silo (S18) are to be controlled by a fabric filter (S18A1).
- Condition 26 - The approved fuels for the Pipe Annealing Oven (S10) are natural gas and fuel oil.
- Condition 27 - Annealing oven (S10) and afterburner (S2A1) fuel usage is limited.
- Condition 28 - Particulate emissions from the Casting Process (S7) are limited.
- Condition 29 - Criteria pollutant emissions from the Pipe Annealing Oven (S10) are limited.

The basis for the following requirements is Chapter 50 of the Regulations for a new and modified stationary source:

- Condition 30 - Visible emissions from the Pipe Annealing Oven (S10) are limited.
- Condition 31 - Visible emissions from the Shell Sand Silo (S18) fabric filter (S18A1) are limited.

Monitoring

Considering the following monitoring and recordkeeping, along with the O&M requirements in the facility-wide section and the MACT compliance requirements, the monitoring is sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is 9VAC5-80-110 E and 9VAC5-80-110 K of the Regulations for a Federal Operating Permit:

- Condition 32 - Periodic monitoring requirements for the Pipe Annealing Oven (S10) stack and Shell Sand Silo (S18) fabric filter (S18A1) stack are listed.

Recordkeeping

The basis for the following requirements are the SOP permit issued 4/16/2007, last amended APRIL 21, 2015; the mNSR permit issued 12/19/2009; last amended 1/12/2012; Chapter 50 of the Regulations for a new and modified stationary source; and 9VAC5-80-110 F of the Regulations for a Federal Operating Permit:

- Condition 33 - A list of required records to be kept is included in the permit in conjunction with the Limitation and Monitoring requirements of the permit.

- Condition 23 - Some of the records kept in this condition for the Melting Department also apply to the Pipe Casting Department.

Testing
There are no testing requirements for the emission units in the Casting Department. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting
There are no reporting requirements for the emission units in the Casting Department.

Streamlined Requirements
None

FINISHING DEPARTMENT REQUIREMENTS – PIPE GRINDING (S11), QUICK DRY PIPE PAINT (S12), CEMENT SILO (S13), SAND SILO (S14), PIPE PAINTING MACHINES (S16), AND SAND TRANSFER SILO (S23)

The Grinding and Cutting Operation (S11), Quick Dry Pipe Paint (S12), Cement Silo (S13), Sand Silo (S14), and Pipe Painting Machines (S16) were installed prior to 1972 and are subject to Chapter 40 of the Regulations. Prior to the issuance of a State Operating Permit (SOP) on April 16, 2007, last amended APRIL 21, 2015, and a minor NSR (mNSR) permit issued on December 19, 2009; last amended January 12, 2012, these units did not have any permit requirements based on Article 5 for a SOP or Article 6 for a mNSR of 9VAC5 Chapter 80 of the Regulations. The Sand Transfer Silo (S23) is subject to Chapter 50 of the Regulations, being included in a mNSR permit dated June 21, 2004, which was subsequently combined into the December 19, 2009 mNSR permit; last amended January 12, 2012.

Limitations

The basis for the following requirements is the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 34 - Particulate emissions from grinding in the Grinding and Cutting Operations (S11) are to be controlled by a fabric filter (S11A1). Particulate emissions from cutting in S11 are to be controlled by wet suppression or S11A1. The minimum control efficiency for particulates from the controls is specified.
- Condition 35 - Particulate emissions from the Sand Transfer Silo (S23) are to be controlled by a silo fabric filter (S23A1).
- Condition 36 - Particulate emissions from the Sand Silos of Line 1 (S14B) and Line 3 (S14A) are to be controlled by fabric filters (S14BA1 & S14AA1). The minimum control efficiency for particulates from the controls is specified.
- Condition 37 - Particulate emissions from the Cement Silos of Line 1 (S13B & S13C) and Line 3 (S13A) are to be controlled by fabric filters (S13BA1 & S13CA1). The minimum control efficiency for particulates from the controls is specified.
- Condition 38 - Particulate emissions from the Weigh Hopper and Mixer of Line 1 (S24B) and Line 3 (S24A) are to be controlled by fabric filters (S24BA1 & S24AA1). The

minimum control efficiency for particulates from the controls is specified. (Condition revised from mNSR permit for action completed.)

- Condition 39 - Particulate emissions from the Mold Preparation (S27) are to be controlled by a fabric filter (S27A1). The minimum control efficiency for particulates from the controls is specified. (Condition revised from mNSR permit for action completed.)
- Condition 40 - Particulate emissions from Painting Machines 1 (S16B) and 3 (S16A) are to be controlled by fabric filters (S16BA1 & S16AA1). The minimum control efficiency for particulates from the controls is specified. (Condition revised from mNSR permit for action completed.)
- Condition 42 - The throughput of coatings for the Quick Dry Solvent Based Paint Pads (S12) is limited and the maximum VOC content of the coatings is limited.
- Condition 43 - The throughput of VOCs for Painting Machine 1 (S16B) and Machine 3 (S16A) are limited and the maximum VOC content of the coatings is limited.
- Condition 44 - The throughput of thinners for the Pipe Painting Operations (S16) is limited.
- Condition 45 - VOC emissions from the Quick Dry Solvent Based Paint Pads (S12) is limited.
- Condition 46 - VOC and particulate emissions from the Pipe Painting Operation (S16A & S16B) are limited.
- Condition 47 - Visual emissions from the Grinding and Cutting Operations (S11) are limited.
- Condition 48 - Visual emissions from the Sand Transfer Silo (S23), the Sand Silos of Line 1 and 3 (S14B & S14A), the Cement Silos of Line 1 and 3 (S13B, S13C, & S13A), the Weigh Hopper and Mixer of Line 1 and 3 (S24B & S24A), the Mold Preparation (S27) are limited.
- Condition 49 - Visual emissions from the Pipe Painting Operation (S16A & S16B) are limited.

The basis for the following requirements are the SOP permit issued 4/16/2007, last amended APRIL 21, 2015, and the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 41 - Work practice standards are specified for the disposal of VOCs.

Monitoring

Considering the following monitoring and recordkeeping, along with the O&M requirements in the facility-wide section and the MACT compliance requirements, the monitoring is sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is the mNSR permit issued 12/19/2009; last amended 1/12/2012:

- Condition 50 - Sand Transfer Silo (S23) fabric filters S23AA1 & S23BA1 are to be equipped to measure the pressure drop across the fabric filters.

The basis for the following requirements is 9VAC5-80-110 E and 9VAC5-80-110 K of the Regulations for a Federal Operating Permit:

- Condition 51 - Periodic monitoring requirements for the Sand Transfer Silo (S23) fabric

filter (S23A1), the Sand Silos (S14B & S14A) fabric filters (S14BA1 & S14AA1), the Cement Silos (S13B, S13C, & (S13A) fabric filters (S13BA1, S13CA1,& S13AA1), the Weigh Hopper and Mixer (S24B & S24A) fabric filters (S24BA1 & S24AA1), the Mold Preparation (S27) fabric filter (S27A1), and Painting Machines (S16B & S16A) fabric filters (S16BA1 & S16AA1) stack are listed.

- Condition 52 - CAM Plan (Attachment A) requirements for the Grinding and Cutting Operations (S11) fabric filter (S11A1) stack are referenced.

Recordkeeping

The basis for the following requirements is the SOP permit issued 4/16/2007, last amended APRIL 21, 2015; the mNSR permit issued 12/19/2009; last amended 1/12/2012; Chapter 50 of the Regulations for a new and modified stationary source; and 9VAC5-80-110 F of the Regulations for a Federal Operating Permit:

- Condition 53 - A list of required records to be kept is included in the permit in conjunction with the Limitation and Monitoring requirements of the permit.

Testing

There are no testing requirements for the emission units in the Finishing Department. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Reporting

The basis for the following requirements are 9VAC5-80-110 F of the Regulations for a Federal Operating Permit and the requirements for CAM in 40 CFR 64:

- Condition 54 - CAM Plan reporting requirements are referenced.

Streamlined Requirements

None

COMPLIANCE ASSURANCE MONITORING (CAM) PLAN

Portions of the facility are subject to the requirement of CAM, which are applicable requirements for the facility, and therefore are to be included in the facility's Title V permit.

The basis for the following requirements is 9VAC5-80-110 F of the Regulations for a Federal Operating Permit and the requirements for CAM in 40 CFR Part 64:

- Conditions 55 through 65 list the CAM requirements for the facility's units that are subject to the 40 CFR Part 64 regulation.

NESHAP FOR IRON AND STEEL FOUNDRIES AREA SOURCES (40 CFR 63 SUBPART ZZZZZ)

The facility is subject to the requirements of the Subpart ZZZZZ MACT, which are applicable requirements for the facility, and therefore are to be included in the facility's Title V permit.

The MACT monitoring requirements are sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is 9VAC5-80-110 of the Regulations for a Federal Operating Permit and the requirements for 40 CFR Part 63 Subpart ZZZZZ:

- Conditions 66 through 71 list the requirements for the facility's units that are subject to the 40 CFR Part 63 Subpart ZZZZZ regulation. Conditions 66.a, 66.b, 70.b(i) and 70.b(ii) are also requirements from the facility's 4/16/07 SOP, last amended APRIL 21, 2015, with the SOP conditions streamlined into the Title V conditions.

NESHAP FOR SOURCE CATEGORY: GASOLINE DISPENSING FACILITIES (40 CFR 63 SUBPART CCCCCC)

The facility's gasoline storage tank (S60) is subject to the requirements of the Subpart CCCCC MACT, which are applicable requirements for the facility, and therefore are to be included in the facility's Title V permit.

The MACT monitoring requirements are sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is 9VAC5-80-110 of the Regulations for a Federal Operating Permit and the requirements for 40 CFR Part 63 Subpart CCCCCC:

- Conditions 72 through 74 list the requirements for the facility's units that are subject to the 40 CFR Part 63 Subpart CCCCCC regulation.

FACILITY WIDE CONDITIONS

There are emissions units in various departments of the facility that are subject to the same requirements. Some of the requirements are based on the minor NSR (mNSR) permit issued on December 19, 2009; last amended January 12, 2012. There are existing units, subject to 9VAC5 Chapter 40 of the Regulations, that do not have any permit requirements based Article 5 or Article 6 of the Regulations. There are new units, subject to 9VAC5 Chapter 50 of the Regulations, that do not have any permit requirements based Article 5 or Article 6 of the Regulations.

Limitations, Recordkeeping, and Testing

Considering the following limitations and recordkeeping, along with the O&M requirements in the facility-wide section, and the MACT compliance requirements, the monitoring is sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is the mNSR permit issued 12/19/2009; last amended 1/12/2012; and 9VAC5-80-110 of the Regulations for a Federal Operating Permit:

- Conditions 75 and 76 identify the fuel specifications for fuels used in the Melting Department and Pipe Casting Department.
- Condition 77 identifies the fuel certification requirements for distillate oil used in the Melting Department and Pipe Casting Department.
- Condition 79 identifies the facility wide maintenance/operating procedures that are applicable.

- Condition 80 identifies the facility wide recordkeeping requirements that are applicable. [Condition 80.e is also a requirement of the April 16, 2007 SOP, last amended APRIL 21, 2015.]
- Condition 81 states if emissions testing is requested sampling ports, a safe sampling platforms, and access shall be provided.

The basis for the following requirements is Chapter 50 of the Regulations for a new and modified stationary source and 9VAC5-80-110 of the Regulations for a Federal Operating Permit:

- Condition 78 identifies the opacity standard for new emissions units.

Streamlined Requirements

Some of the emissions units in the facility are considered "existing sources" because of their installation date. Existing units have an opacity standard from 9VAC5 Chapter 40 that is less stringent than the opacity standard for the Area Source Foundry MACT (40 CFR 63 Subpart ZZZZZ) Therefore, the existing source opacity standard is being streamlined out of the Title V permit.

FACILITY WIDE REQUIREMENTS FOR HAZARDOUS AIR POLLUTANTS EMISSIONS (HAPS)

As a result of the issuance of the April 16, 2007 SOP, last amended APRIL 21, 2015, the facility currently does not have the potential to emit hazardous air pollutants (HAPs) in quantities greater than the 10/25 ton major source HAP thresholds.

Limitations and Recordkeeping

Considering the following limitations and recordkeeping, along with the O&M requirements in the facility-wide section, and the MACT compliance requirements, the monitoring is sufficient to assure compliance with the requirements of this section.

The basis for the following requirements is the SOP permit issued 4/16/2007, last amended APRIL 21, 2015, and 9VAC5-80-110 of the Regulations for a Federal Operating Permit:

- Condition 82 limits HAP emissions to less than the major source thresholds.
- Condition 83 limits emission factors used for HAP emissions to those approved by DEQ.
- Condition 84 gives requirements for testing of HAP metals.
- Condition 85 requires records to show compliance with the HAP limits.

GREENHOUSE GAS (GHG) EMISSIONS

Greenhouse gases (GHG) are a group of pollutants of which carbon dioxide (CO_2), nitrous oxide (N_20), methane (CH_4) are primary contributors. GHG permitting requirements have not been identified for the emissions units at this facility.

- For 2013[1] the facility reported GHG emissions of 54,413 metric tons/yr for a reported metal scrap charge rate of 98,614 tons/yr. Annual metal scrap charge rate for the facility is limited to 222,837 tons/yr.

[1] 2013 is the latest GHG data available on EPA's GHG Reporting website.

GENERAL CONDITIONS

Conditions 88 through 118 contain general conditions required by 40 CFR Part 70 and 9VAC5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

FUTURE APPLICABLE REQUIREMENTS

None identified

INAPPLICABLE REQUIREMENTS

- Condition 87 lists the following identified inapplicable requirements:

The Industrial Process Cooling Towers MACT (40 CFR Part 63 Subpart Q) is not currently applicable. The facility does not use any chromium-based chemicals in the cooling towers.

The Halogenated Solvent Cleaning MACT (40 CFR Part 63 Subpart T) is not currently applicable. The facility does not use any halogenated cleaning solvents in its parts cleaner.

The Area Source: Industrial, Commercial, and Institutional Boilers MACT (40 CFR Part 63 Subpart JJJJJJ) is not currently applicable. Under this subpart hot water heaters of no more than 120 U.S. gallons and hot water boilers less than 1.6 million Btu/hr are not subject to this subpart and to any requirements in this subpart (§63.11195). There are currently no boilers operating at the facility.

The Stationary Reciprocating Internal Combustion Engines (RICE) MACT (40 CFR Part 63 Subpart ZZZZ) applies to the emergency generator (25 kW natural gas fired) at the facility. Under Subpart ZZZZ, spark ignition engines subject to the RICE, that are designated as new by the subpart, must meet the requirements of this subpart by meeting the requirements of 40 CFR part 60 subpart JJJJ, and no further requirements from the subpart apply for such engines. The emergency generator (25 kW natural gas fired) at the facility meets the definition of a new generator. (§63.6590(c)(1))

The NSPS for Stationary Spark Ignition Internal Combustion Engines (40 CFR Part 60 Subpart JJJJ) is not currently applicable. The 25kW new spark ignition emergency generator was manufactured prior to July 1, 2008 is not subject to the subpart. (60.4230(a)(3)(iii)

The startup, shut down, and malfunction opacity exclusion listed in 9VAC5-40-20 A 3 cannot be included in any Title V permit. This portion of the regulation is not part of the federally approved state implementation plan. The opacity standard applies to existing sources at all times including startup, shutdown, and malfunction. Opacity exceedances during malfunction can be affirmatively defended provided all requirements of the affirmative defense section of this permit are met. Opacity exceedances during startup and shut down will be reviewed with enforcement discretion using the requirements of 9VAC5-40-20 E, which state that "At all times, including periods of startup, shutdown, soot blowing and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions."

INSIGNIFICANT EMISSION UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9VAC5-80-110.

- Condition 86 - Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation[1]	Pollutant(s) Emitted (9VAC5-80-720 B)	Rated Capacity (9VAC5-80-720 C)
S34	Cooling tower	9 VAC 5-80-720 B	PM	-
S24	Space heating	9 VAC 5-80-720 B	PM, NOx, SO_2, CO, VOC	-
S43	Hot water heaters	9 VAC 5-80-720 B	PM, NOx, SO_2, CO, VOC	-
S58	Parts Cleaner	9 VAC 5-80-720 B	VOC	-
S59	fuel oil storage tank	9 VAC 5-80-720 B	VOC	-
S61	hydraulic oil storage tank	9 VAC 5-80-720 B	VOC	-
S62	gear oil storage tank	9 VAC 5-80-720 B	VOC	-
S63	motor oil storage tank	9 VAC 5-80-720 B	VOC	-
S64	Used Oil Tank	9 VAC 5-80-720 B	VOC	-
S65	Oil-water separator	9 VAC 5-80-720 B	VOC	-
S69	Groundwater and soil remediation	9 VAC 5-80-720 B	VOC	-

[1]The citation criteria for insignificant activities are as follows:
9VAC5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
9VAC5-80-720 B - Insignificant due to emission levels
9VAC5-80-720 C - Insignificant due to size or production rate

CONFIDENTIAL INFORMATION

None

PUBLIC PARTICIPATION

A public notice for comments was placed in Lynchburg's "The News & Advance" and the DEQ website (*www.deq.virginia.gov*). The comment period was March 20, 2015 to April 20, 2015. No comments were received during the comment period.

IRON TREATMENT PM CAM PLAN

1.0 Emissions Unit Description

Process/Emissions Unit: Baghouse from desulfurization and magnesium plunging - S3A1
Pollutant: PM, Opacity
Emissions Control Technique: Baghouse

2.0 Applicable Requirements

Opacity: 20%
Control Efficiency: 99.9%

3.0 Monitoring Approach

General Monitoring Approach	Visible emissions checks and inspection and maintenance program.
Monitoring Methods and Location	Visible emissions (VE) checks are performed to ensure equipment is operating properly and bags are not deteriorating. If visible emissions are observed, a Method 9 observation is performed to determine if the unit is in compliance with the opacity standard.
Indicator Range	No visible emissions
Data Collection Frequency	Daily – visible emissions observations (1 minute)
Averaging Period	None
Recordkeeping	Records kept of daily VE observations and all inspections and any maintenance performed.
QA/QC	VE observer trained per Method 22. Opacity observer trained and certified per Method 9.

4.0 Basis

All three of the emission limits are based on good baghouse operation. When operating normally, there are no visible emissions from this baghouse. As such, observation of visible emissions is an indicator that the baghouse needs inspection.

If visible emissions are observed, two steps are taken:

- A Method 9 observation will verify compliance with the opacity standard. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals.
- The baghouse will be inspected and maintenance will be performed if necessary.

5.0 Additional Comments

The post-control potential emissions are less than 1 tpy of PM, which is far below the 100 tpy threshold that requires increased monitoring frequency.

PIPE GRINDING & CUTTING PM CAM PLAN

1.0 Emissions Unit Description

Process/Emissions Unit: Baghouse for pipe grinding/cutting – S11A1
Pollutant: PM, Opacity
Emissions Control Technique: Baghouse

2.0 Applicable Requirements

Opacity: 5%
Control Efficiency: 99.9%

3.0 Monitoring Approach

General Monitoring Approach	Visible emissions checks and inspection and maintenance program.
Monitoring Methods and Location	Visible emissions (VE) checks are performed to ensure equipment is operating properly and bags are not deteriorating. If visible emissions are observed, a Method 9 observation is performed to determine if the unit is in compliance with the opacity standard.
Indicator Range	No visible emissions
Data Collection Frequency	Daily – visible emissions observations (1 minute)
Averaging Period	None
Recordkeeping	Records kept of daily VE observations and all inspections and any maintenance performed.
QA/QC	VE observer trained per Method 22. Opacity observer trained and certified per Method 9.

4.0 Basis

All three of the emission limits are based on good baghouse operation. When operating normally, there are no visible emissions from this baghouse. As such, observation of visible emissions is an indicator that the baghouse needs inspection.

If visible emissions are observed, two steps are taken:

- A Method 9 observation will verify compliance with the opacity standard. Opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals.
- The baghouse will be inspected and maintenance will be performed if necessary.

5.0 Additional Comments

The post-control potential emissions are less than 1 tpy of PM, which is far below the 100 tpy threshold that requires increased monitoring frequency.